

Notice of Allowability

Application No.

10/506,531

Applicant(s)

UGAI ET AL.

Examiner

Art Unit

Maria Veronica D. Ewald

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/5/07.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date <u>9/5/07</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Allowable Subject Matter

Claims 1 – 14 are allowed. The following is an examiner's statement of reasons for allowance: The closest prior art reference of JP 2002-105505 and Hirabayashi (U.S. 6,355,210) fail to teach a permanent magnet molding apparatus wherein there is a plurality of transferable metal die units transferable onto and off the said mounting base, of which the metal die units include a die prefilled before transfer to the mounting base and means for transferring the plurality of metal die units *one by one onto and off the said mounting base*. Furthermore, it is noted that the limitation which states means for transferring the plurality of metal die units one by one onto and off said mounting base recite element(s) in means plus function form. These elements have been interpreted as invoking 35 U.S.C. § 112, sixth paragraph, and thereby limited to the corresponding structure described in the specification and equivalents thereof. In re Donaldson, 16 F.3d1189, 1194, 29 USPQ2d 1845, 1850 (Fed. Cir. 1994); MPEP § 2181. Thus, the means for transferring the plurality of metal die units one by one have been interpreted as the structural components and equivalents thereof as indicated in the specification, pages 18 – 19, as a first cylinder 15 and second conveyor belt, wherein the die unit is transferred from the second conveyor belt by the first cylinder to the mounting base to which are fixed the pressurizing cylinders and the coils 21 (page 13).

The primary reference of JP 2002-105505 teach a single die which is placed onto a support structure (item 22 – figure 1) and filled with metal powder, then conveyed along rails by a conveyance means (item 23 – figure 1) to a press apparatus. The conveyance means is not a cylinder and conveyor belt combination. In addition, the

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secondary reference of Hirabayashi also fails to teach the conveyance or transfer means as claimed by Applicant.

Thus, prior art fails to teach either alone or in combination, a permanent magnet molding apparatus comprising: a mounting base; a plurality of transferable metal die units that are transferable onto and off said mounting base, each metal die unit including: a die having a cavity of a desired cross-sectional shape in which magnet molding material powder is prefillable before being transferred to the mounting base, the cavity extending in groovelike form in a specific direction on a surface of the die; a lid member placed against a facing surface of said die as if covering said cavity; and a pair of punches having the same cross-sectional shape as said cavity, said punches being positioned to fit in said cavity such that said punches close said cavity at both ends thereof, and said punches being made slidable in directions in which said punches go into contact with and become separated from the magnet molding material powder; means for transferring the plurality of metal die units one by one onto and off said mounting base; pressurizing means for holding the plurality of metal die units one by one, which have been transferred to said mounting base, with said magnet molding material powder prefilled in said cavity and for pressurizing said magnet molding material powder by driving said two punches such that said two punches slide in their approaching directions; and magnetic field generating means for magnetizing the magnet molding material powder pressurized in said cavity while applying a magnetic field thereto in a direction perpendicular to a direction of pressurization. With respect to claim 13 which incorporates allowable subject matter as indicated in the previous office

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action, prior art also fails to teach a permanent magnet molding apparatus comprising: a mounting base; a transferable metal die unit transferable onto and off said mounting base, the metal die unit including: a die having a cavity of a desired cross-sectional shape for containing magnet molding material powder, the cavity extending in groovelike form in a specific direction on a surface of the die; a lid member placed against a facing surface of said die as if covering said cavity; a base frame on which the die is located; and a pair of punches having the same cross-sectional shape as said cavity, said punches being positioned to fit in said cavity such that said punches close said cavity at both ends thereof, and said punches being slidable on said base frame while being guided along the extending direction of said cavity to cause said punches go into contact with and become separated from magnet molding material powder in said cavity; pressurizing means for holding the metal die unit, which has been transferred to said mounting base, with said magnet molding material powder in said cavity and for pressurizing said magnet molding material powder by driving said two punches such that said two punches slide in their approaching directions; a grasping member which engages with said base frame, wherein said grasping member fits slidably in the extending direction of said cavity and said lid member is forced against said die and held in position via a locking mechanism between said base frame and said grasping member; and magnetic field generating means for magnetizing the magnet molding material powder pressurized in said cavity while applying a magnetic field thereto in a direction perpendicular to a direction of pressurization.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria Veronica D. Ewald whose telephone number is 571-272-8519. The examiner can normally be reached on M-F, 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MVE


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